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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,193	03/22/2004	Michael Dornhausen	R 304994	1131
7590	10/06/2005		EXAMINER COOLMAN, VAUGHN	
Walter Ottesen Patent Attorney P.O. Box 4026 Gaithersburg, MD 20885-4026			ART UNIT 3618	PAPER NUMBER

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,193

Applicant(s)

DORNHAUSEN, MICHAEL

Examiner

Vaughn T. Coolman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05172005, 07112005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 7, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "said operator-controlled element" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. Examiner suggests that claim 4 depend from claim 3, instead of claim 1, to correct the lack of antecedent basis. For the purposes of examination, claim 4 is treated as such.

Claim 7 recites the limitations: "the rain intensity", "the ambient brightness", the ambient temperature", and "the ambient pressure" in lines 2-5. There is insufficient antecedent basis for these limitations in the claim. Examiner suggests that claim 6 depend from claim 2, instead of claim 1, to correct the lack of antecedent basis. For the purposes of examination, claim 7 is treated as such.

Claim 9 recites the limitations "the wheel slip" and "the instantaneous speed" in lines 2-4. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 7, 8, 9, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Shuman et al (U.S. Patent No. 6,353,785).

In re claim 1, Shuman discloses a method of limiting the speed of a vehicle (Column 29, line 65), the method comprising the steps of: determining the environmental conditions of said vehicle (Column 30, lines 38-39); determining a maximum permissible speed in dependence upon the determined environmental conditions (Column 30, lines 33-34); and, limiting the speed of said vehicle to said maximum permissible speed (Column 30, lines 56-61).

In re claim 2, Shuman discloses all of the elements of the claimed invention as described above and also discloses the further step of determining the environmental conditions in dependence upon at least one of the following: rain intensity (Column 18, lines 50-51), humidity (Column 18, line 48), ambient temperature (Column, lines 46-47), ambient pressure (Column 18, line 42), and ambient brightness (Column 18, line 45). The determination of these environmental conditions is further diagrammed in FIG 13.

In re claims 6 and 7, Shuman discloses all of the elements of the claimed invention as described above and further discloses her method having the step of the driver entering preferences, which may be used for customizing operation of vehicle applications. This ability is taken to be the further step of disabling said limiting when at least one of the environmental conditions passes a pre-given threshold. The environmental conditions are taken to be any one of

those described above, and the pregiven values are taken to be those entered by the driver of Shuman when setting his preferences.

In re claims 8 and 9, Shuman discloses all of the elements of the claimed invention as described above and also includes the further step of disabling the limiting (Column 22, lines 45-55) when a switch-off condition is present (Column 24, lines 4-7). Shuman's method is also inherently capable of programming and determining the switch-off condition being present when at least one of the following occurs: the wheel slip of said vehicle, as monitored by the traction control sensor (FIG 4, item 204-9), dropping below a fifth pregiven value, set by the driver as described above; the instantaneous speed, as monitored by the speedometer (FIG 4, item 204-2), of the vehicle dropping below a sixth pregiven value, set by the driver as described above. These values are communicated to the modeling program and vehicle operations, wherein the speed limiter (FIG 6, item 224-1) resides, and the speed limiting can be discontinued or not, depending on the driver or standard preferences.

In re claim 14, Shuman discloses an arrangement for limiting the speed of a vehicle (Column 29, line 65), the arrangement including: means for determining the environmental conditions of said vehicle (FIG 2, item 202); means for determining a maximum permissible speed (FIG 2, item 212) in dependence upon the determined environmental conditions (Column 18, lines 42-51); and, means for limiting the speed of said vehicle to said maximum permissible speed (FIG 2, items 230, 258, 208).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman et al (U.S. Patent No. 6,353,785) in view of Artis et al (U.S. Patent No. 6,675,923).

In re claims 3 and 4, Shuman discloses all of the elements of the claimed invention as described above including the further step of disabling the speed limiting when an operator-controlled element is actuated. However, she does not disclose the element being actuated beyond a pregiven threshold angle. Artis teaches the use of an operator-controlled element, an accelerator pedal (FIG 2, item 3), to override or disable the limiting of vehicle speed (Column 3, lines 56-61), when the accelerator pedal is actuated beyond a pregiven threshold angle (FIG 2, items 22, 23, 24). The threshold angle is formed by the pedal arm contact points of stops 23 and 24, with the vertex of the angle being the center of the rotational pin 22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman, with the accelerator pedal configured to disable the speed limiter as taught by Artis, since such a modification would, according to Artis, allow a user to perform maneuvers or requiring speeds greater than the limit in the event of an emergency (Column 4, lines 12-14).

In re claims 11 and 12, Shuman also fails to disclose the limiting of speed being realized by limiting a driver command torque. However, Shuman's method includes a traction control application that monitors and controls information from the data model (FIG 5, item 213)

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relating to vehicle speed, engine speed, road conditions, environmental conditions, and driver commands to provide outputs to the operations applications, including the speed limiter (FIG 6, item 224-1) for the torque to be applied to each wheel, the actuation of the vehicle's mechanical systems (FIG 7, items 208) being controlled by the critical vehicle control program (FIGS 6, 7; item 230). Shuman's method is obviously capable of limiting driver command torque in order to limit vehicle speed. Shuman also fails to disclose the limiting of speed being realized by limiting a degree of actuation of an operator-controlled element. However, Artis discloses an operator-controlled element, an accelerator pedal, for a vehicle, wherein the limiting of vehicle speed is realized by limiting a degree of actuation of the accelerator pedal (Column 4, lines 9-12). The device of Artis includes two travel parts, the first travel part (FIG 1, item 311) being responsible for limiting the speed of the vehicle. The limit of the degree of actuation occurs in FIG 1 at boundary 310. The driver can appreciably sense the limit due to the appreciably stronger effort; therefore the speed is limited by limiting a degree of actuation of the accelerator pedal.

Claims 5, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Artis, and further in view of Schmitz et al (U.S. Patent No. 6,789,009).

In re claim 5, Shuman in view of Artis discloses all of the elements of the claimed invention as described above except for the speed limiting being disabled when the actuation has been present for at least a first pregiven time. Schmitz teaches vehicle speed limiting being disabled when actuation of an accelerator (gas) pedal has been present for at least a first pregiven time (Column 4, lines 51-54). The term ' ds/dt ' defines a change in position over a change in time for the gas pedal, which for the accelerator pedal of Artis is an angular position. For a change in time to be defined for the calculation to occur, it is obvious that there is at least a first

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pregiven time. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman as modified by Artis, with the determination of position versus time as taught by Schmitz, since such a modification would provide the advantage of not disabling the speed limiting system with an inadvertent depression of the accelerator pedal.

In re claim 10, Shuman in view of Artis and Schmitz discloses all of the elements of the claimed invention as described above. Shuman also discloses a method that is obviously capable of limiting vehicle speed only when the environmental conditions are present uninterrupted for a second pregiven time and the instantaneous speed of said vehicle exceeds the maximum permissible speed (Column 30, lines 33-39; Column 30, lines 48-58). The advantage of this feature is the ability of the method to detect the driver engaging in unsafe driving habits or the vehicle entering a hazardous driving condition as defined by the user.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuman in view of Hellmann et al (U.S. Patent No. 6,675,086).

In re claim 13, Shuman discloses all of the elements of the claimed invention as described above except for an increase of the speed of said vehicle above the maximum permissible speed being carried out in the form of a ramp function or iteratively in a pregiven step width.

However, Hellmann teaches the use of both a ramp function (FIG 2) and a step function (Column 2, lines 55-57) for interrupting vehicle speed limiting. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method shown by Shuman, with the mathematical functions for increasing vehicle speed as taught by Hellmann, since such a modification would, according to Hellmann, provide the advantage of a soft

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transition free of shaking or jerking between the speed limiting mode and non-speed-limiting mode (Column 1, lines 25-40).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Baumann et al (U.S. Patent No. 5,497,677) shows an accelerator pedal that pivots about a central point.

Bellinger et al (U.S. Patent No. 6,021,370) discloses speed increase control in the form of iterative step functions.

Kajiwara (U.S. Patent No. 5,432,509) discloses a speed limiting system that depends on environmental conditions.

Zimmermann et al (U.S. Patent No. 6,820,709) shows a speed limiting system that is disabled by depressing an operator-controlled element, including an accelerator pedal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vaughn T. Coolman whose telephone number is (571) 272-6014. The examiner can normally be reached on Monday thru Friday, 8am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Travis Coolman
Examiner
Art Unit 3618

vtc

A handwritten signature in black ink, appearing to read 'CP Ellis', is positioned above the printed name of Christopher P. Ellis.

CHRISTOPHER P. ELLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600